

STIHL®

STIHL MSE 140 C, 160 C, 180 C, 200 C

Instruction Manual



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Dear Customer,

Thank you for choosing a quality engineered STIHL product.

It has been built using modern production techniques and comprehensive quality assurance. Every effort has been made to ensure your satisfaction and troublefree use of the product.

Please contact your dealer or our sales company if you have any queries concerning this product.

Your



Dr. Nikolas Stihl

STIHL®

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Guide to Using this Manual

Pictograms

All the pictograms attached to the machine are shown and explained in this manual.

Symbols in text



WARNING

Warning where there is a risk of an accident or personal injury or serious damage to property.



NOTICE

Caution where there is a risk of damaging the machine or its individual components.

Engineering improvements

STIHL's philosophy is to continually improve all of its products. For this reason we may modify the design, engineering and appearance of our products periodically.

Therefore, some changes, modifications and improvements may not be covered in this manual.

Safety Precautions and Working Techniques



Because this chain saw is a high-speed wood-cutting tool with very sharp cutters and powered by electricity, some special safety precautions must be observed in addition to those that generally apply when working with an axe or hand saw.



It is important you read and understand the instruction manual before first use and keep the manual in a safe place for future reference. Non-observance of the instruction manual may result in serious or even fatal injury.



Observe all application local safety regulations, standards and ordinances.

If you have not used this power tool model before: Have your dealer or other experienced user show you how to operate your power tool or attend a special course in its operation.

Minors should never be allowed to use a power tool.

Keep bystanders, especially children, and animals away from the work area.

When the power tool is not in use, shut it off so that it does not endanger others. Secure it against unauthorized use, disconnect the plug from the power supply.

The user is responsible for avoiding injury to third parties or damage to their property.

Do not lend or rent your unit without the instruction manual. Be sure that anyone using it understands the information contained in this manual.

The use of noise emitting power tools may be restricted to certain times by national or local regulations.

To operate the power tool you must be rested, in good physical condition and mental health. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a power tool.

Do not operate the power tool if you are under the influence of any substance (drugs, alcohol) which might impair vision, dexterity or judgment.

To reduce the risk of accidents or injury, put off the work in poor weather conditions (rain, snow, ice, wind).

Only cut wood or wooden objects.

It must not be used for any other purpose because of the increased risk of accidents and damage to the machine. Never attempt to modify the power tool in any way since this may result in accidents or damage to the power tool.

To reduce the risk of accidents, always disconnect the plug from the power supply before carrying out any work on the power tool.

Unsuitable extension cords can be extremely dangerous.

Make sure that the conductor cross section (wire gauge) of extension cords meets the minimum requirements – see chapter on "Connecting to Power Supply".

Only use tools, guide bars, chains, chain sprockets and accessories that are explicitly approved for this power tool model by STIHL or are technically identical. If you have any questions in this respect, consult a servicing dealer. Use only high quality parts and accessories in order to avoid the risk of accidents and damage to the unit.

STIHL recommends the use of STIHL original tools, guide bars, chains, chain sprockets and accessories. They are specifically designed to match your model and meet your performance requirements.

Never attempt to modify your power tool in any way since this may increase the risk of personal injury. STIHL excludes all liability for personal injury and damage to property caused while using unauthorized attachments.

Do not use a pressure washer to clean the power tool. The solid jet of water may damage parts of the power tool.

Do not spray the power tool with water.

Clothing and Equipment

Wear proper protective clothing and equipment.



Clothing must be sturdy but allow complete freedom of movement. Wear snug-fitting clothing with cut retardant inserts – an overall and jacket combination, do not wear a work coat.

Avoid clothing that could get caught on branches or brush or moving parts of the machine. Do not wear a scarf, necktie or jewelry. Tie up and confine long hair (e.g. with a hair net, cap, hard hat, etc.).



Wear steel-toed **safety boots** with cut retardant inserts and non-slip soles.



Wear a **safety hard hat** where there is a danger of head injuries from falling objects. Wear **safety glasses or face shield** and **hearing protection**, e.g. earplugs or ear muffs.



Wear heavy-duty gloves.

STIHL offers a comprehensive range of personal protective clothing and equipment.

Transporting the Power Tool

Before carrying the saw, even for short distances, switch it off, engage the chain brake, fit the chain scabbard and remove the plug from the wall outlet.

Always carry the power tool by the front handle, never by the power cord, keeping the guide bar behind you.

Transporting by vehicle: Properly secure your power tool to prevent turnover, chain oil spillage and damage.

Before Starting Work

Check that your power tool is properly assembled and in good condition – refer to appropriate chapters in the instruction manual.

- Voltage and frequency of the machine (see rating plate) and the voltage and frequency of your power supply must be the same.
- Check the connecting cord, plug, extension cord and safety devices for damage. Never use damaged cords, couplings and plugs or connecting cords that do not comply with regulations.
- The plugs and couplings of extension cords must be splashproof.
- **To reduce the risk of stumbling,** position and mark the connecting cord so that it cannot be damaged or endanger others.
- Switch/trigger locked in position when lockout button is not depressed.
- Check operation of chain brake, front hand guard
- Correctly mounted guide bar
- Correctly tensioned chain
- Never attempt to modify the controls or safety devices in any way.

- Keep the handles dry and clean – free from oil and resin – for safe control of the power tool.
- Make sure the motor housing is not damaged.

To reduce the risk of accidents and personal injury, do not operate your power tool if it is not properly assembled and in good condition.

The connecting cord, mains plug and switch are particularly important. Never use damaged cords and plugs or connecting cords that do not comply with regulations.



If the connecting cord is damaged, immediately disconnect the plug from the power supply to avoid the **risk of electric shock**.

When you use an extension cord, make sure the plug and coupling are waterproof or positioned in such a way that they cannot come into contact with water.

The wall outlet must be equipped with a ground-fault circuit breaker or such a device must be installed between the wall outlet and the power tool. Contact an electrician for further information.

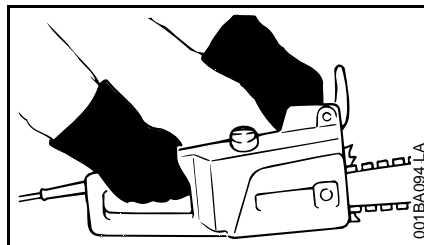
Do not drive over, squash or jerk the connecting cord. Protect it from heat, oil and sharp edges.

Make sure that the conductor cross section (wire gauge) of extension cords meets the minimum requirements – see chapter on "Connecting to Power Supply".

To reduce the risk of electric shock:

- Always connect the power tool to a properly installed wall outlet.
- Make sure the extension cord used complies with the regulations for the intended application.
- Check that the insulation of the power cord, extension cord, plug and coupling is in good condition.

Holding and Controlling the Power Tool



Always hold your power tool firmly with both hands: Right hand on the rear handle, left hand on front handle, even if you are left-handed.

During Operation

Make sure you always have good balance and secure footing.

In case of imminent danger or in an emergency, release the trigger switch immediately.

Your power tool is designed to be operated by one person only. Do not allow other persons in the work area.

Position the connecting and extension cords correctly:

- Do not chafe on edges, pointed or sharp objects
- Do not squeeze through gaps in doors or windows
- If cords are twisted – unplug the power tool and straighten them out
- Always unwind the extension cord completely from the cable drum **to reduce the risk of fire from overheating**.
- The extension cord must always be behind you. To reduce the risk of stumbling, position and mark the cord so that it cannot be damaged or endanger others.
- Keep the connecting cord so that it cannot be touched by the rotating chain.

When switching on, check that the chain is not touching any object or the ground.



The drive motor is not waterproof. **To reduce the risk of a short circuit or electrocution**, never work with the power tool in the rain or in wet or very damp locations.

Do not leave your power tool out in the rain and do not operate it as long as it is damp.

Take special care in slippery conditions – damp, snow, ice, on slopes, uneven ground and freshly debarked logs.

Watch out for obstacles such as tree stumps, roots and ditches which could cause you to trip or stumble.

Do not work alone – keep within calling distance of others in case help is needed.

Be particularly alert and cautious when wearing hearing protection because your ability to hear warnings (shouts, alarms, etc.) is restricted.

To reduce the risk of accidents, take a break in good time to avoid tiredness or exhaustion.

The dusts (e.g. sawdust) produced during operation may be dangerous to health. If dust levels are very high, wear a suitable respirator.

Your power tool is equipped with a system designed to quickly stop the saw chain – it comes to an immediate standstill as soon as you release the trigger switch.

Check this function at regular short intervals. Do not operate your chain saw if the chain continues to run after you release the trigger switch – see "Coasting Brake" – **risk of injury**. Contact your servicing dealer.

Never jerk the connecting cord to disconnect it from the wall outlet. To unplug, grasp the plug, not the cord.

Be sure your hands are dry before touching the plug or power cord.

Check the saw chain at regular short intervals during operation or immediately if there is a noticeable change in cutting behavior:

- Switch off the motor, wait for the chain to come to a standstill, disconnect the plug from the power supply.
- Check condition and proper mounting.
- Check sharpness.

Do not touch the chain while the engine is running. If the chain becomes jammed by an obstacle, switch off the motor immediately and disconnect the plug from the power supply before attempting to free the obstruction.

Always switch off the motor and remove the plug it from the wall outlet before replacing the chain. **This avoids the risk of injury** from the chain starting unintentionally.

To reduce the risk of fire, do not smoke while operating or standing near your power tool.

Always unplug your power tool from the wall outlet when it is not in use – this helps avoid accidental start-up.

If your power tool is subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall), always check that it is in good condition before continuing work – see also "Before Starting Work".

Make sure the safety devices are working properly. Do not continue operating your power tool if it is damaged. In case of doubt, have the unit checked by your servicing dealer.

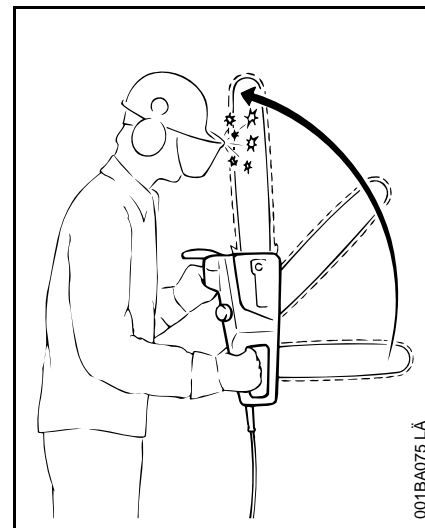
Reactive Forces

The most common reactive forces that occur during cutting are: kickback, pushback and pull-in.

Dangers of kickback

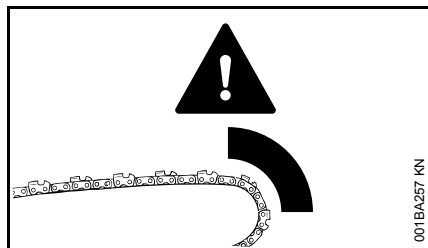


Kickback can result in serious or fatal injury.



Kickback occurs when the saw is suddenly thrown up and back in an uncontrolled arc towards the operator.

Kickback occurs, e.g.



- when the upper quadrant of the bar nose unintentionally contacts wood or another solid object, e.g. when another limb is touched accidentally during limbing.
- when the chain at the nose of the guide bar is pinched in the cut.

QuickStop chain brake

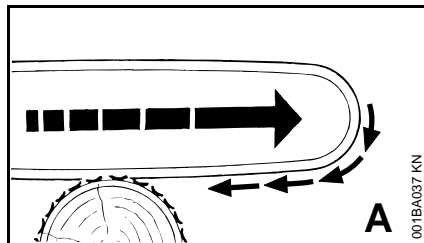
This device reduces the risk of injury in certain situations – it cannot prevent kickback. If activated, the brake stops the saw chain within a fraction of a second – for a description of this device refer to chapter on "Chain Brake" in this manual.

To reduce the risk of kickback

- Work cautiously and avoid situations which could cause kickback.
- Hold the saw firmly with both hands and maintain a secure grip.
- Be aware of the location of the guide bar nose at all times.
- Do not cut with the bar nose.
- Take special care with small, tough limbs, they may catch the chain.
- Never cut several limbs at once.

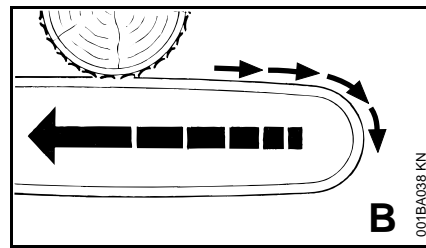
- Do not overreach.
- Never cut above shoulder height.
- Use extreme caution when re-entering a previous cut.
- Do not attempt plunge cuts if you are not experienced in this cutting technique.
- Be alert for shifting of the log or other forces that may cause the cut to close and pinch the chain.
- Always cut with a correctly sharpened, properly tensioned chain – the depth gauge setting must not be too large.
- Use a low kickback chain and a narrow radius guide bar.

Pull-in (A)



Pull-in occurs when the chain on the bottom of the bar is suddenly pinched, caught or encounters a foreign object in the wood. The reaction of the chain pulls the saw forward – **always hold the spiked bumper securely against the tree or limb.**

Pushback (B)



Pushback occurs when the chain on the top of the bar is suddenly pinched, caught or encounters a foreign object in the wood. The reaction of the chain drives the saw straight back toward the operator. **To avoid pushback.**

- Be alert to situations that may cause the top of the guide bar to be pinched
- Do not twist the guide bar in the cut.

Exercise extreme caution

- with leaners
- with trees that have fallen unfavorably between other trees and are under strain

Do not work with the chain saw in such circumstances. Use block and tackle, cable winch or tractor.

Pull out exposed and cleared logs. Select clear area for cutting.

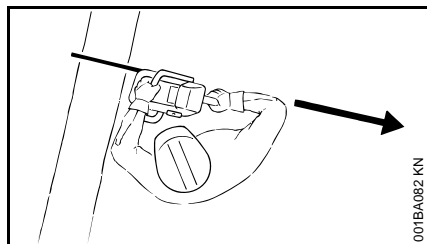
Deadwood (dry, decayed or rotted wood) represents a considerable risk that is difficult to assess. Identifying the extent of the dangers is complicated, if not impossible. Use aids such as a cable winch or tractor in such cases.

When felling in the vicinity of roads, railways, power lines, etc., take extra precautions. If necessary, inform the police, utility company or railway authority.

Cutting

Work calmly and carefully – in daylight conditions and only when visibility is good. Stay alert so as not to endanger others.

Use the shortest possible guide bar: The chain, guide bar and chain sprocket must match each other and your saw.



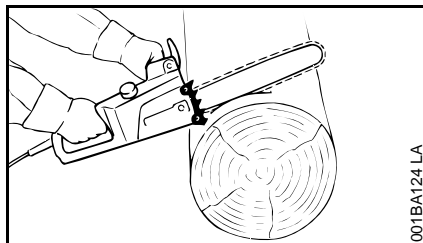
Position the saw so that your body is **clear of the cutting attachment**.

Use your chain saw for cutting only. It is not designed for prying or shoveling away limbs, roots or other objects.

Do not underbuck freely hanging limbs.

To reduce the risk of injury, take special care when cutting shattered wood because of the risk of injury from splinters being caught and thrown in your direction.

Make sure your power tool does not touch any foreign materials: Stones, nails, etc. may be flung off, damage the saw chain or cause the saw to kick back unexpectedly.



When cutting with the bottom of the guide bar (overbucking): Never work without the spiked bumper because the saw may pull you forwards and off balance. Always engage the spiked bumper in the wood first and then start cutting.

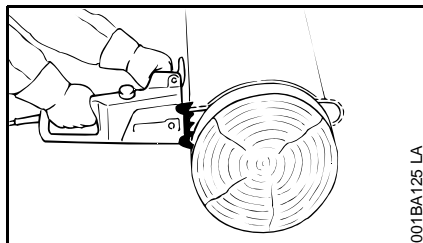
Start the cut with the chain running at full speed.

Feed during the cut:

- Carefully raise the rear handle.
- Control the saw with the front handle.
- Use the spiked bumper as a pivot.

Re-positioning in the cut:

- Carefully withdraw the saw until the spiked bumper is clear of the log.



- Continue cutting by carefully applying pressure to the front handle.
- Re-engage the spiked bumper.

Always pull the saw out of the cut with the chain running.

Note when reaching the end of a cut that the saw is no longer supported in the kerf. You have to take the full weight of the unit since **it might otherwise go out of control**.



If on a slope, stand on the uphill side of the log. Watch out for rolling logs.

When working at heights:

- Always use a lift bucket
- Never work on a ladder or in a tree
- Never work on an insecure support
- Do not work above shoulder height
- Never operate your power tool with one hand

Felling

Do not attempt felling unless you have been trained in the necessary techniques. **To reduce the risk of accidents and injury**, do not attempt felling or limbing if you are not an experienced chain saw user.

Gasoline chain saws are more suitable than electric saws for felling and limbing. The freedom of movement necessary for this work is restricted by the connecting cord.

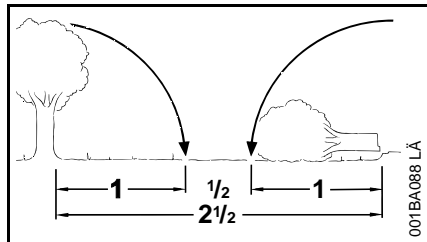
Your electric chain saw is unsuitable for cutting in blowdown areas and must not be used for such work.

However, if a tree is to be felled and limbed with an electric saw against this recommendation, it is essential to observe the following instructions.

Observe all country-specific regulations on felling techniques.

Check that there are no other persons in the felling area – other than helpers.

Make sure no-one is endangered by the falling tree – the noise of your engine may drown any warning calls.



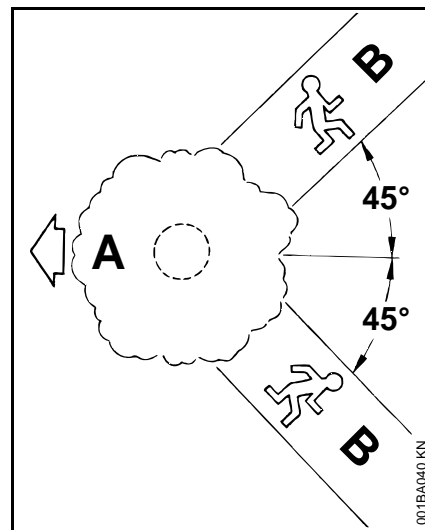
Maintain a distance of at least 2 1/2 tree lengths from the next felling site.

Determine direction of fall and escape paths

Select gap in stand into which you want the tree to fall.

Pay special attention to the following points:

- The natural lean of the tree
- Any unusually heavy limb structure, damage
- The wind direction and speed – do not fell in high winds
- Sloping ground
- Neighboring trees
- Snow load
- Soundness of tree – take special care if trunk is damaged or in case of deadwood (dry, decayed or rotted wood)
- The extension cord must not be looped. It must be long enough to be laid in wide-radius curves. It must not be under tension and must lie flat on the ground over its whole length.



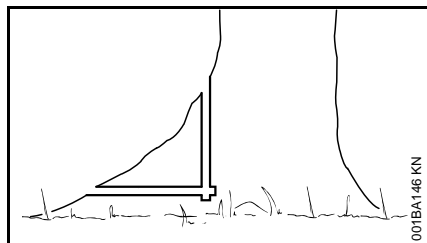
A Direction of fall

B Escape paths

- Establish paths of escape for everyone concerned – opposite to direction of fall at about 45°.
- Remove all obstacles from escape paths.
- Place all tools and equipment a safe distance away from the tree, but not on the escape paths.
- Always keep to the side of the falling tree and only walk away along the preplanned escape path.
- On steep slopes, plan escape routes parallel to the slope.
- When walking away along the escape path, watch out for falling limbs and watch the top of the tree.

Preparing work area at base of tree

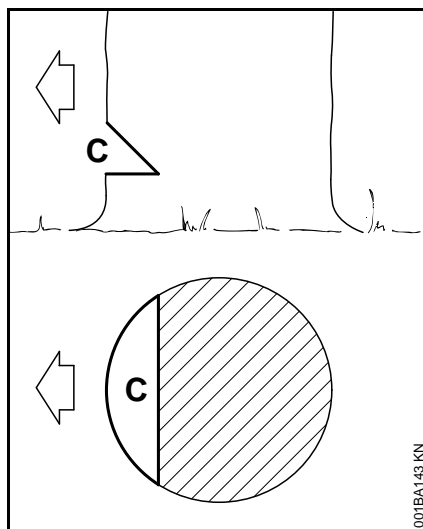
- First clear the tree base and work area from interfering limbs and brush to provide a secure footing.
- Clean lower portion of tree base (e.g. with an axe) – sand, stones and other foreign objects will dull the saw chain.



- Remove large buttress roots: Make the vertical cut first, then the horizontal – but only if the wood is sound

Making felling notch

There are several approved methods for making the felling notch – observe country-specific regulations on felling techniques.



The felling notch (C) determines the direction of fall.

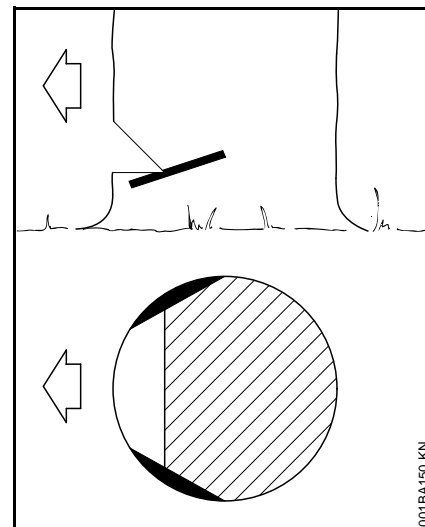
STIHL recommends the following method:

- Make the horizontal cut – check the direction of fall.
- Make angle cut at about 45°.
- Check the felling notch and correct it if necessary.

Important:

- Felling notch at a right angle to the planned direction of fall.
- As close to the ground as possible.
- Cut to a depth of about 1/5 to 1/3 of the trunk diameter.

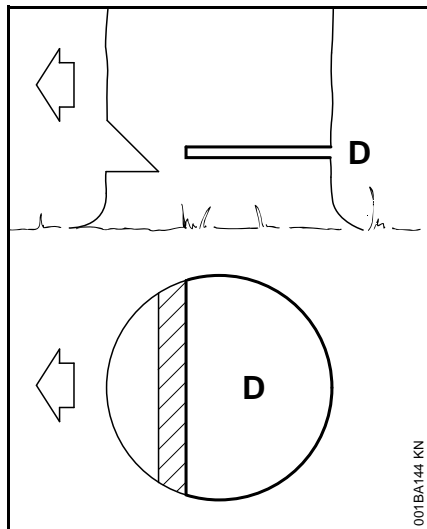
Sapwood cuts



Sapwood cuts in long-fibered softwood help prevent sapwood splintering when the tree falls. Make cuts at both sides of the trunk at same height as bottom of felling notch to a depth of about 1/10 of trunk diameter. On large diameter trees, cut to no more than width of guide bar.

Do not make sapwood cuts if wood is diseased.

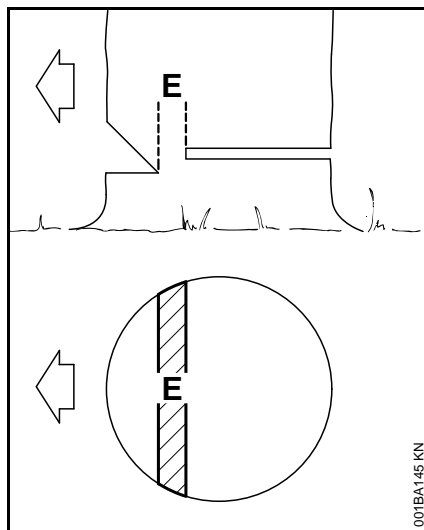
Felling



Shout a warning before starting the felling cut.

- Make the felling cut (D) slightly higher than bottom of the felling notch.
- Cut horizontally.
- Leave approx. 1/10 of the tree diameter uncut between the felling cut and the felling notch. This is the hinge.

Drive wedges into the felling cut in good time. Use only wooden, aluminum or plastic wedges. Never steel, which can damage the chain and cause kickback.

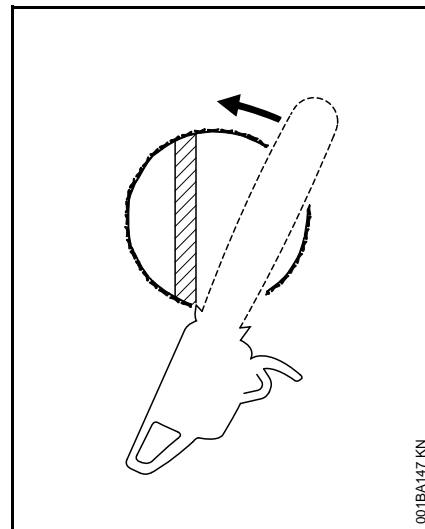


The **hinge** (E) helps control the falling tree.

- Do not cut through the hinge – you could lose control of the direction of fall – **this could result in an accident.**
- Leave a broader hinge on rotten trees.

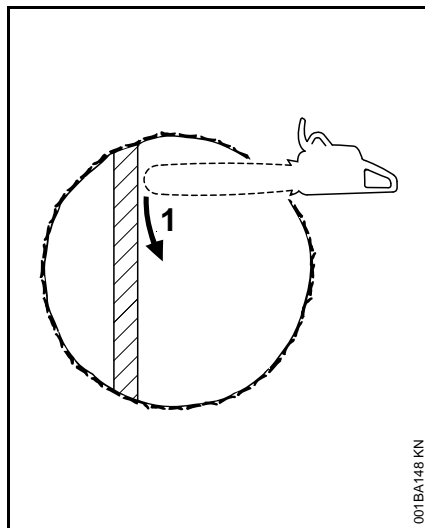
Shout a second warning immediately before the tree falls.

Small diameter trees: Simple fan cut



- Apply the spiked bumper behind the hinge – pivot the saw around this point - only as far as the hinge. The spiked bumper rolls against the trunk.

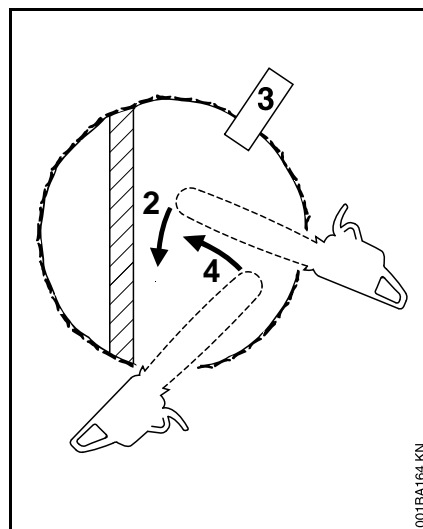
Large diameter trees: Sectioning method



If the diameter of the tree is greater than the length of the guide bar, use the sectioning method.

1. First cut

Nose of guide bar should enter wood just behind the hinge – hold the saw horizontally and swing it as far as possible, using the bumper spike as a pivot – avoid repositioning the saw more than necessary.



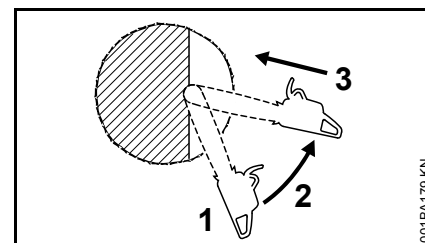
2. When repositioning the saw for the next cut, keep the guide bar fully engaged in the kerf to keep the felling cut straight – apply the spiked bumper again, and so on.
3. Insert a wedge (3) in the cut.
4. Last cut: Apply the spiked bumper as for the simple fan cut – do not cut through the hinge.

Special cutting techniques

Plunge cuts and heartwood cuts require special training and experience.

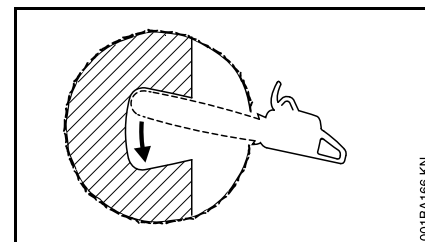
Plunge cutting

- For felling leaners
- For relieving cuts during bucking
- For DIY projects



- Use a low kickback chain and exercise particular caution
1. Begin cut by applying the lower portion of the guide bar nose – do not use upper portion because of – **risk of kickback**. Cut until depth of kerf is twice the width of the guide bar.
 2. Swing saw slowly into plunge-cutting position – take care because of the **risk of kickback or pushback**.
 3. Make the plunge cut very carefully. **Danger of pushback.**

Heartwood cut



- If tree diameter is more than twice the length of the guide bar.
- If a large portion of heartwood remains uncut on large diameter trees.

- On trees that are difficult to fell (oak, beech), to prevent heartwood splintering and maintain planned direction of fall.
- On soft deciduous trees to relieve tension in lying log and prevent slivers in the center of the hinge being torn out of the log.
- Make the plunge cut in the center of the felling notch – **there is a danger of pushback at this point** – then swing the bar in the direction of the arrow.

Limbing

Do not attempt limbing unless you have been trained in the necessary techniques. **To reduce the risk of accidents and injury**, do not attempt felling or limbing if you are not an experienced chain saw user.

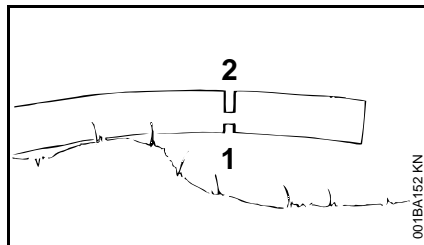
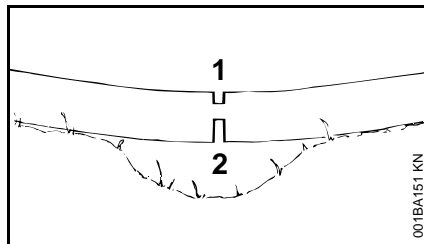
- Use a low kickback chain.
- Work with the saw supported wherever possible.
- Do not stand on the log while limbing it.
- Do not cut with the bar nose.
- Watch for limbs which are under tension.
- Never cut several limbs at once.
- The extension cord must not be looped. It must be long enough to be laid in wide-radius curves. It must not be under tension and must lie flat on the ground over its whole length.

When cutting small logs

- Use a sturdy and stable support – sawhorse.
- Never hold the log with your leg or foot.
- Never allow another person to hold the log or help in any other way.

Lying or standing logs under tension

Always make cuts in the correct sequence (first at the compression side (1), then at the tension side (2), the saw may otherwise pinch or kick back – **risk of injury**).



- Make relieving cut at the compression side (1)
- Make bucking cut at the tension side (2)

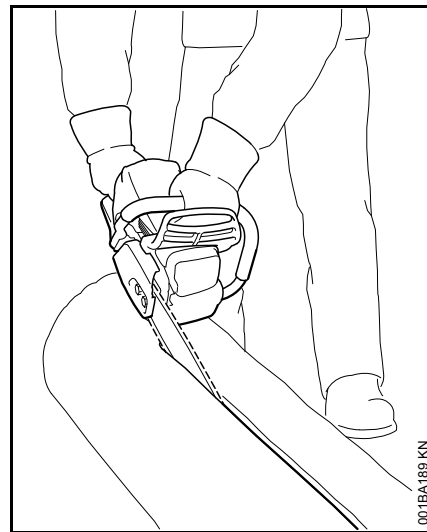
Be wary of **pushback** when making bucking cut from the bottom upwards (underbuck).



NOTICE

Do not cut a lying log at a point where it is touching the ground because the saw chain will otherwise be damaged.

Ripping cut



Cutting technique in which the spiked bumper is not used – risk of pull-in – start the cut with the guide bar at the shallowest possible angle – take extra care since there is an increased **danger of kickback**.

Vibrations

Prolonged use of the power tool may result in vibration-induced circulation problems in the hands (whitefinger disease).

No general recommendation can be given for the length of usage because it depends on several factors.

The period of usage is prolonged by:

- Hand protection (wearing warm gloves)
- Work breaks

The period of usage is shortened by:

- Any personal tendency to suffer from poor circulation (symptoms: frequently cold fingers, tingling sensations).
- Low outside temperatures.
- The force with which the handles are held (a tight grip restricts circulation).

Continual and regular users should monitor closely the condition of their hands and fingers. If any of the above symptoms appear (e.g. tingling sensation in fingers), seek medical advice.

Maintenance and Repairs

Always switch off the machine and disconnect it from the wall outlet before performing any maintenance work. **This avoids the risk of injury** from the chain starting unintentionally.

Service the machine regularly. Do not attempt any maintenance or repair work not described in the instruction manual. Have all other work performed by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the unit. If you have any questions in this respect, consult a servicing dealer.

STIHL recommends the use of genuine STIHL replacement parts. They are specifically designed to match your model and meet your performance requirements.

Never attempt to modify your power tool in any way since this will increase the **risk of personal injury**.

Regularly check that the insulation of the power cord and plug is in good condition and shows no sign of ageing (brittleness).

Electrical components, e.g. power cord, may only be repaired or replaced by a qualified electrician.

Check the chain catcher and replace it if damaged.

Observe sharpening instructions – keep the chain and guide bar in good condition at all times for safe and correct handling of the saw. The chain must be properly sharpened, tensioned and well lubricated.

Always change the chain, guide bar and sprocket in good time.

Store chain lubricant in properly labelled, safety-type canisters only.

To reduce the risk of injury, shut off the saw immediately if the chain brake malfunctions – contact your servicing dealer – do not use your saw until the problem has been rectified (see "Chain Brake").

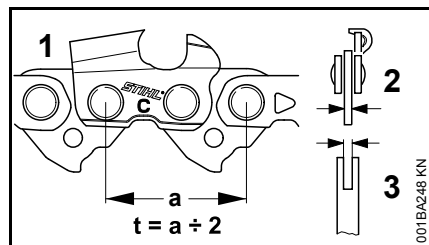
Clean plastic surfaces with a cloth. Do not use aggressive detergents. They may damage the plastic.

Cutting Attachment

STIHL is the only manufacturer in the industry to produce its own chain saws, guide bars, saw chains and chain sprockets.

A cutting attachment consists of the saw chain, guide bar and chain sprocket.

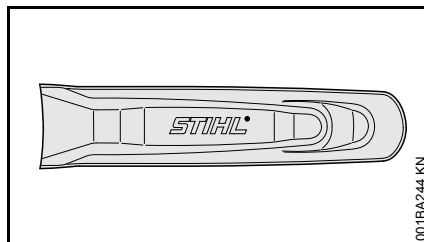
The cutting attachment that comes standard is designed to exactly match the chain saw.



- The pitch (t) of the saw chain (1), chain sprocket and the nose sprocket of the Rollomatic guide bar must match.
- The drive link gauge (2) of the saw chain (1) must match the groove width of the guide bar (3).

If non-matching components are used, the cutting attachment may be damaged beyond repair after a short period of operation.

Chain Scabbard



Your saw comes standard with a chain scabbard that matches the cutting attachment.

If guide bars of different lengths are mounted to the saw, always use a chain scabbard of the correct length which covers the complete guide bar.

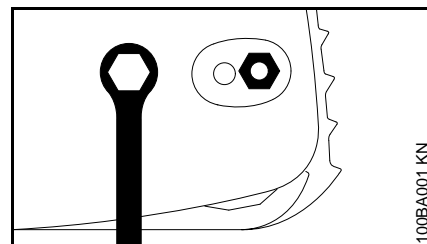
The length of the matching guide bars is marked on the side of the chain scabbard.

Mounting the Bar and Chain (front chain tensioner)

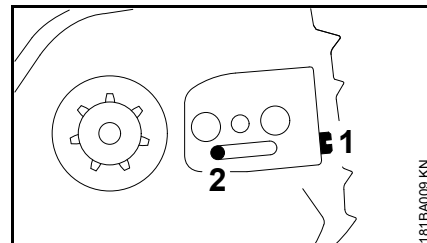
! WARNING

Do not connect the power tool to the wall outlet yet.

Removing the chain sprocket cover

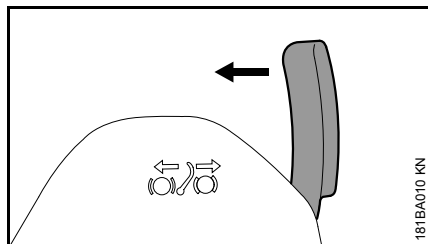


- Unscrew the nut and remove the chain sprocket cover.



- Turn the screw (1) counterclockwise until the tensioning nut (2) butts against the left end of the housing slot.

Disengaging the chain brake.



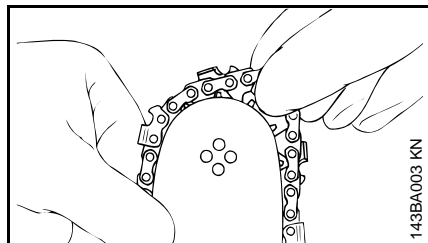
- Pull the hand guard towards the front handle until there is an audible click – the chain brake is disengaged.

Fitting the chain

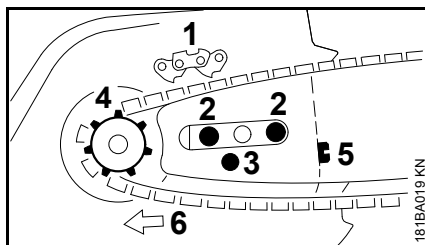


WARNING

Wear work gloves to protect your hands from the sharp cutters.



- Fit the chain – start at the bar nose.



- Turn the guide bar so that the chain is positioned as shown in the pictogram (1).
- Fit the guide bar over the studs (2) and engage the tensioning nut in the hole (3) – place the chain over the sprocket (4) at the same time.
- Turn the tensioning screw (5) clockwise until there is very little chain sag on the underside of the bar – and the drive link tangs are engaged in the bar groove.
- Refit the sprocket cover and screw on the nut fingertight.
- The arrow (6) indicates the direction of chain rotation.
- Go to chapter on "Tensioning the Saw Chain"

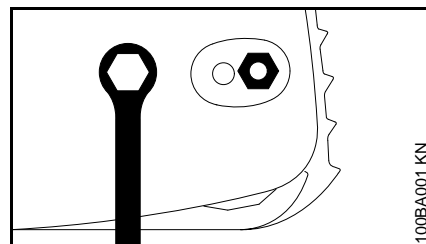
Mounting the Bar and Chain (side chain tensioner)



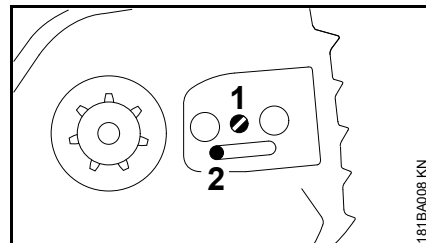
WARNING

Do not connect the power tool to the wall outlet yet.

Removing the chain sprocket cover

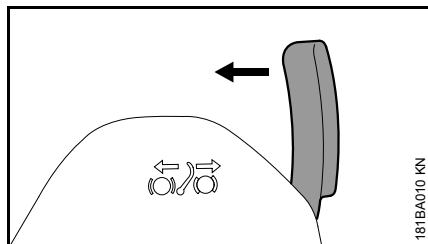


- Unscrew the nut and remove the chain sprocket cover.



- Turn the screw (1) counterclockwise until the tensioning nut (2) butts against the left end of the housing slot.

Disengaging the chain brake.



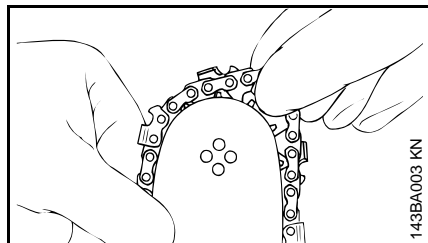
- Pull the hand guard towards the front handle until there is an audible click – the chain brake is disengaged.

Fitting the chain

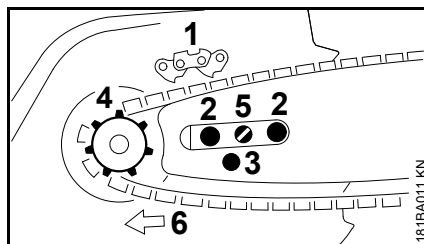


WARNING

Wear work gloves to protect your hands from the sharp cutters.



- Fit the chain – start at the bar nose.



- Turn the guide bar so that the chain is positioned as shown in the pictogram (1).
- Fit the guide bar over the studs (2) and engage the tensioning nut in the hole (3) – place the chain over the sprocket (4) at the same time.
- Turn the tensioning screw (5) clockwise until there is very little chain sag on the underside of the bar – and the drive link tangs are engaged in the bar groove.
- Refit the sprocket cover and screw on the nut fingertight.
- The arrow (6) indicates the direction of chain rotation.
- Go to chapter on "Tensioning the Saw Chain"

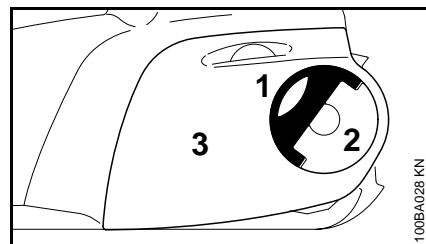
Mounting the Bar and Chain (quick chain tensioner)



WARNING

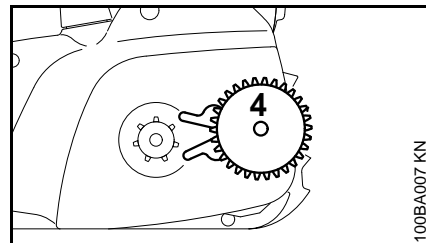
Do not connect the power tool to the wall outlet yet.

Removing the chain sprocket cover

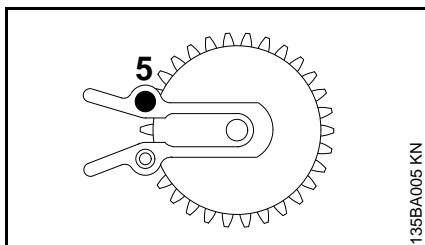


- Pull out the hinged clip (1) so that it snaps into position.
- Turn the wingnut (2) counterclockwise until it hangs loose in the sprocket cover (3).
- Remove the chain sprocket cover (3).

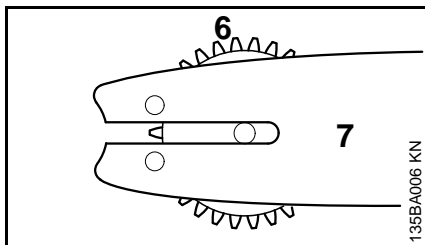
Fitting the tensioning gear



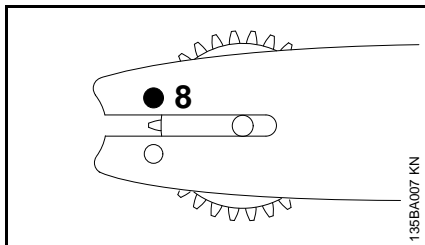
- Remove the tensioning gear (4) and turn it over.



- Take out the screw (5).

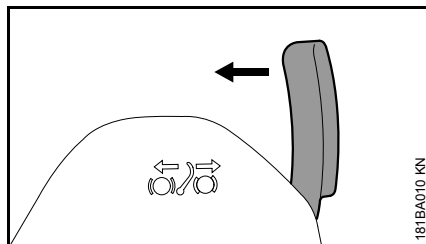


- Line up the tensioning gear (6) and guide bar (7).



- Insert the screw (8) and tighten it down firmly.

Disengaging the chain brake.



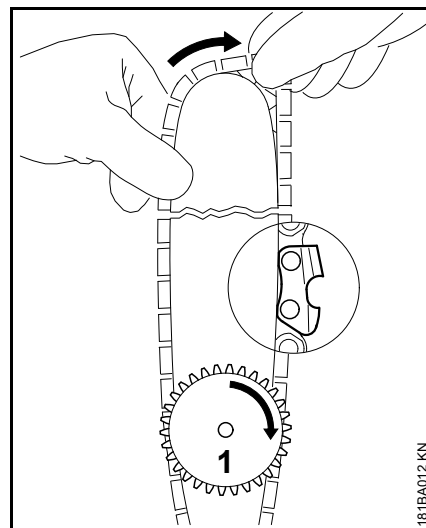
- Pull the hand guard towards the front handle until there is an audible click – the chain brake is disengaged.

Fitting the chain

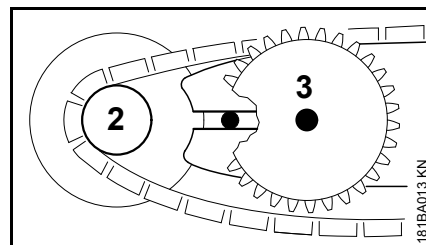


WARNING

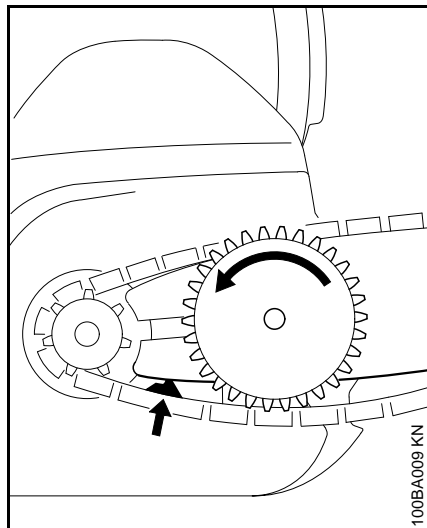
Wear work gloves to protect your hands from the sharp cutters.



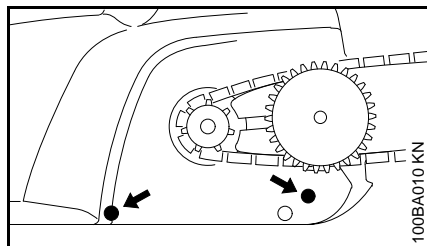
- Fit the chain – start at the bar nose. Pay attention to the position of the tensioning gear and the cutting edges.
- Turn the tensioning gear (1) clockwise as far as stop.
- Turn the guide bar so that the tensioning gear is facing you.



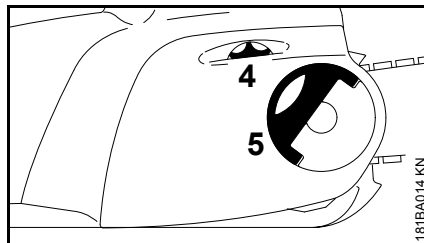
- Fit the chain over the sprocket (2).
- Push the guide bar over the bar stud (3), the head of the rear bar stud must engage the slot.



- Make sure the drive link tangs engage the bar groove (arrow) and then rotate the tensioning gear counterclockwise as far as stop.



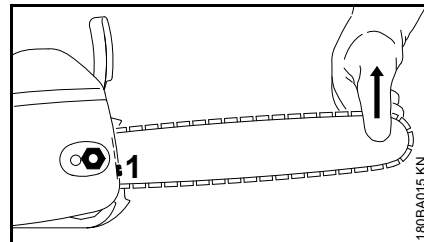
- Place the chain sprocket cover in position and engage the guide lugs in the recesses in the engine housing.



When fitting the chain sprocket cover, check that the teeth of the tensioning gear and adjusting wheel mesh properly.

- If necessary, turn the adjusting wheel (4) slightly until the sprocket cover can be pushed flush against the engine housing.
- Pull out the hinged clip (5) so that it snaps into position.
- Engage wingnut and tighten it down moderately.
- Go to chapter on "Tensioning the Saw Chain"

Tensioning the Saw Chain (front chain tensioner)



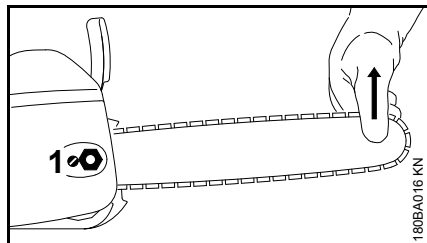
Retensioning during cutting work:

- Disconnect the plug from the wall outlet.
- Loosen the nut.
- Hold the bar nose up.
- Use a screwdriver to turn the tensioning screw (1) clockwise until the chain fits snugly against the underside of the bar.
- While still holding the bar nose up, tighten down the nut firmly.
- Go to "Checking Chain Tension".

A new chain has to be retensioned more often than one that has been in use for some time.

- Check chain tension frequently – see chapter on "Operating Instructions".

Tensioning the Saw Chain (side chain tensioner)



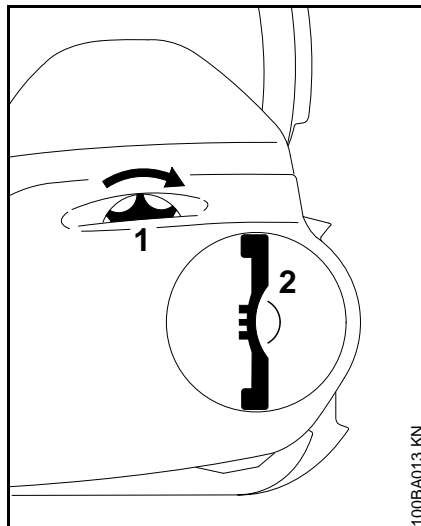
Retensioning during cutting work:

- Disconnect the plug from the wall outlet.
- Loosen the nut.
- Hold the bar nose up.
- Use a screwdriver to turn the tensioning screw (1) clockwise until the chain fits snugly against the underside of the bar.
- While still holding the bar nose up, tighten down the nut firmly.
- Go to "Checking Chain Tension".

A new chain has to be retensioned more often than one that has been in use for some time.

- Check chain tension frequently – see chapter on "Operating Instructions".

Tensioning the Saw Chain (quick chain tensioner)



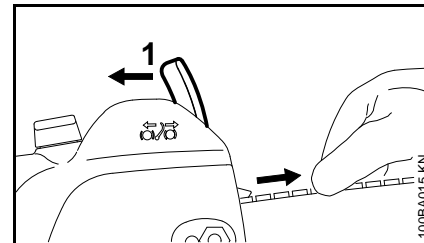
Retensioning during cutting work:

- Disconnect the plug from the wall outlet.
- Pull out the hinged grip and loosen the wingnut.
- Turn the adjusting wheel (1) clockwise as far as stop.
- Tighten down the wingnut (2) firmly by hand.
- Fold down the hinged grip.
- Go to "Checking Chain Tension".

A new chain has to be retensioned more often than one that has been in use for some time.

- Check chain tension frequently – see chapter on "Operating Instructions".

Checking Chain Tension



- Disconnect the plug from the wall outlet.
- Wear work gloves to protect your hands.
- Disengage the chain brake: Pull the hand guard (1) against the front handle and hold it there – the chain brake and coasting brake are disengaged in this position.
- The chain must fit snugly against the underside of the bar and it must still be possible to pull the chain along the bar by hand.
- If necessary, retension the chain.

A new chain has to be retensioned more often than one that has been in use for some time.

- Check chain tension frequently – see chapter on "Operating Instructions".

Chain Lubricant

For automatic and reliable lubrication of the chain and guide bar – use only an environmentally compatible quality chain and bar lubricant. Rapidly biodegradable STIHL Bioplus is recommended.



NOTICE

Biological chain oil must be resistant to aging (e.g. STIHL Bioplus) since it will otherwise quickly turn to resin. This results in hard deposits that are difficult to remove, especially in the area of the chain drive and chain. It may even cause the oil pump to seize.

The service life of the chain and guide bar depends on the quality of the lubricant. It is therefore essential to use only a specially formulated chain lubricant.



WARNING

Do not use waste oil. Renewed contact with waste oil can cause skin cancer. Moreover, waste oil is environmentally harmful.



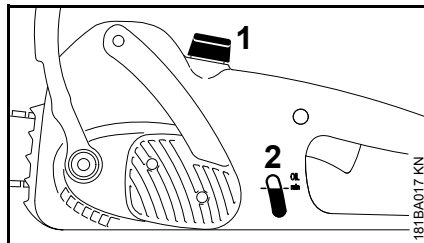
NOTICE

Waste oil does not have the necessary lubricating properties and is unsuitable for chain lubrication.

Filling Chain Oil Tank



Preparations



- Thoroughly clean the oil filler cap (1) and the area around it to ensure that no dirt falls into the tank.
- Position the machine so that the filler cap is facing up.
- Open the filler cap.

Filling the Chain Oil Tank

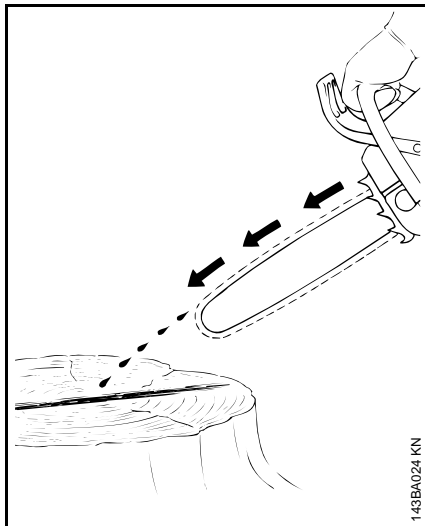
- Fill up with chain oil.

Take care not to spill chain oil while refilling and do not overfill the tank.

- Close the filler cap.
- Check the oil level regularly during operation.
- Top up the oil tank when the oil level reaches the "min" mark (2) or earlier.

If the oil level in the tank does not go down, the reason may be a fault in the oil supply system: Check chain lubrication, clean the oilways, contact your dealer for assistance if necessary. STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer.

Checking Chain Lubrication



The saw chain must always throw off a small amount of oil.



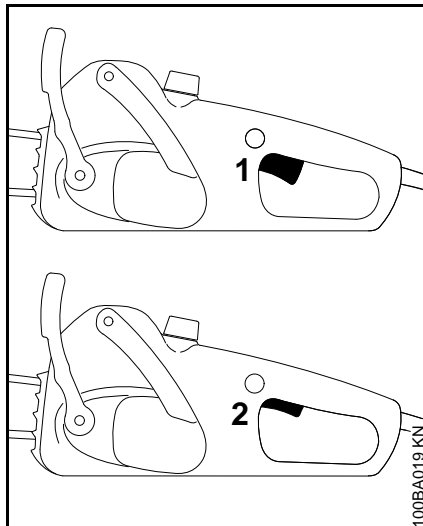
NOTICE

Never operate your saw without chain lubrication. If the chain runs dry, the whole cutting attachment will be irretrievably damaged within a very short time. Always check chain lubrication and the oil level in the tank before starting work.

Every new chain has to be broken in for about 2 to 3 minutes.

After breaking in the chain, check chain tension and adjust if necessary – see "Checking Chain Tension".

Coasting Brake



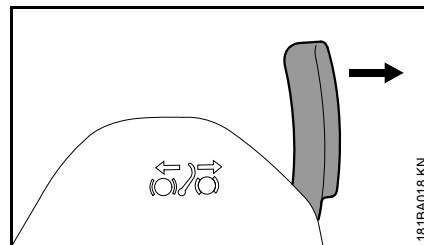
The coasting brake brings the running chain to a standstill when you let go of the trigger switch.

- 1 Coasting brake stops the running chain.
- 2 Coasting brake disengaged.

Chain Brake



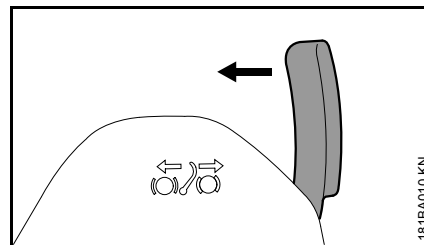
Locking the chain



– in an emergency

The chain brake is activated by pushing the hand guard toward the bar nose with your left hand – or by inertia in certain kickback situations: The chain is stopped and locked.

Disengage the chain brake.



- Pull the hand guard back toward the front handle.

The chain brake is also activated by the inertia of the front hand guard if the kickback force of the saw is high enough: The hand guard is accelerated toward the bar nose – even if your left hand is not behind the hand guard, e.g. during a horizontal cut.

The chain brake will operate only if the hand guard has not been modified in any way.

Checking operation of the chain brake

Before starting work:

- Disengage the chain brake.
- Switch on the motor.
- Push the hand guard towards the bar nose.

The chain brake is working properly if the saw chain comes to a standstill within a few fractions of a second.

The hand guard must be free from dirt and move freely.

Chain brake maintenance

The chain brake is subject to normal wear. It is necessary to have it serviced and maintained regularly by trained personnel. STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. Maintain the following servicing intervals:

Full-time usage:	every 3 months
Part-time usage:	every 6 months
Occasional usage:	every 12 months

Connecting to Power Supply

The voltage and frequency of the machine (see rating plate) must match the voltage and frequency of the power connection.

The minimum fuse protection of the power connection must comply with the specifications – see "Specifications".

The machine must be connected to the power supply via an earth-leakage circuit breaker to disconnect the power supply if the differential current to earth exceeds 30 mA.

The power connection must correspond to IEC 60364 and relevant national regulations.

Depending on the supply voltage and cord length, the minimum conductor cross section of the extension cord must be as follows:

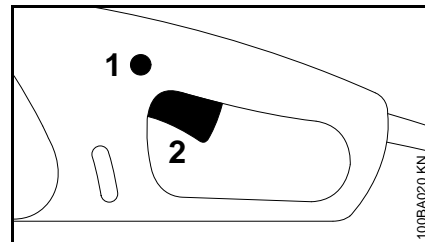
Cord length	Minimum cross section
220 V – 240 V:	
up to 20 m	1.5 mm ²
20 m to 50 m	2.5 mm ²
100 V – 127 V:	
up to 10 m	AWG 14 / 2.0 mm ²
10 m to 30 m	AWG 12 / 3.5 mm ²

Connecting to Wall Outlet

- Connect the power tool's plug or the extension cord's plug to a properly installed wall outlet.

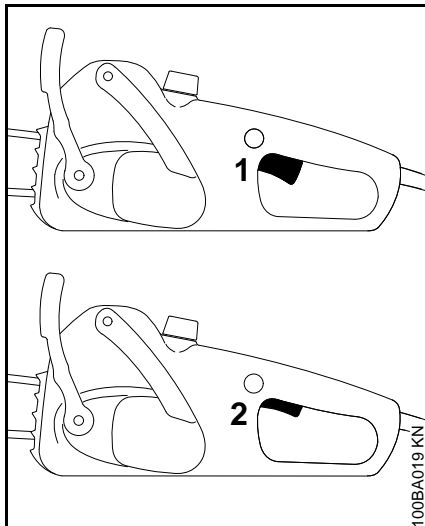
Switching On

- Make sure you have a firm footing.
- Check that bystanders are well clear of the general work area of the power tool.
- Hold the power tool firmly with both hands on the handles.
- Disengage the chain brake by pulling the hand guard back towards the front handle.
- Check that the saw chain is not touching the wood or any other object.



- Press the lockout button (1) with your thumb.
- Squeeze the trigger switch (2) with your index finger.
- Start the cut with the chain running.

Switching Off



- Release the trigger switch so that it can return to the off position (1). It is locked in this position by the trigger switch lockout.

The coasting brake brings the chain to a standstill.

WARNING

If the trigger switch is held in position 2, the coasting brake is not activated and the chain will continue running for several seconds.

During longer work breaks – disconnect the plug from the power supply.

When the machine is not in use, shut it off so that it does not endanger others.

Secure it against unauthorized use.

Overload Cutout

The overload cutout interrupts the power supply to the saw in the case of mechanical overload due to, e.g.

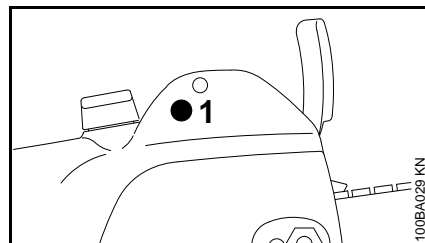
- excessive infeed force
- "lugging down" the motor
- pinching the saw chain in the cut

If the overload cutout has interrupted the power supply:

- Pull the guide bar out of the cut.
- If necessary, disengage the chain brake – see "Chain Brake".

MSE 140 C, MSE 160 C, MSE 180 C

- Wait for the overload cutout to cool down.



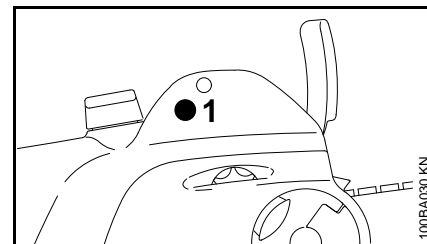
- Press the pushbutton (1) – if the motor does not run when you switch on, the overload cutout has not yet cooled down sufficiently – wait a while and then press in the pushbutton again as far as stop.

When the motor restarts:

- Run the motor off-load for about 15 seconds. This cools the motor and helps prevent the overload cutout tripping again.

MSE 200 C

The MSE 200 C is equipped with an electronic overload cutout to monitor motor temperature and power consumption.



- The indicator lamp (1) comes on in the event of overload and the power supply is interrupted – the lamp goes off after about 2 seconds and the machine is again ready for operation.
- Run the motor off-load for about 15 seconds. This cools the motor and helps prevent the overload cutout tripping again.

The indicator lamp glows only as long as the trigger switch is operated.

The indicator lamp flashes briefly to confirm it is functioning every time the motor is switched on.

Operating Instructions

During operation

- Check level in chain oil tank.
- Top up with chain oil when the "min" mark is reached, or earlier – see "Filling the Chain Oil Tank".

Check chain tension frequently

A new chain has to be retensioned more often than one that has been in use for some time.

Chain cold

Tension is correct when the chain fits snugly against the underside of the bar and can still be pulled along the bar by hand. Retension if necessary – see "Tensioning the Saw Chain".

Chain at operating temperature

The chain stretches and begins to sag. The drive links must not come out of the bar groove – the chain may otherwise jump off the bar. Retension the chain – see "Tensioning the Saw Chain".



NOTICE

The chain contracts as it cools down. If it is not slackened off, it can damage the drive shaft and bearings.

After finishing work

- Disconnect the plug from the wall outlet.
- Slacken off the chain if you have retensioned it at operating temperature during cutting work.



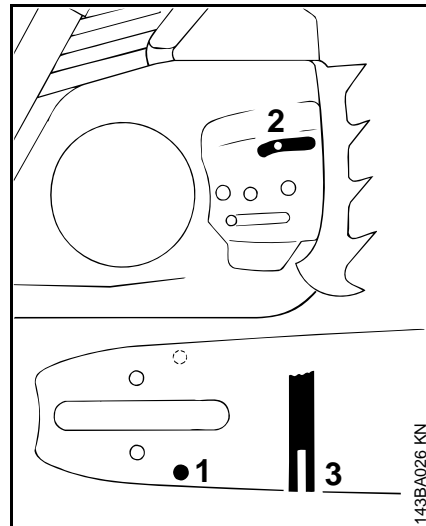
NOTICE

Always slacken off the chain after finishing work. The chain contracts as it cools down. If it is not slackened off, it can damage the drive shaft and bearings.

Storing for a long period

See chapter on "Storing the Machine"

Taking Care of the Guide Bar



- Flip the bar – after each sharpening and each time the chain is changed – to avoid uneven wear, especially at the sprocket nose and on the bottom
- Periodically clean the oil inlet hole (1), oil outlet channel (2) and bar groove (3)
- Measure groove depth – using the measuring tool on the file gauge (special accessory) – in the area with the greatest wear

Chain type	Chain pitch	Minimum groove depth
------------	-------------	----------------------

Picco	1/4" P	4.0 mm
-------	--------	--------

Rapid	1/4"	4.0 mm
-------	------	--------

Picco	3/8" P	5.0 mm
-------	--------	--------

Rapid	3/8"; 0.325"	6.0 mm
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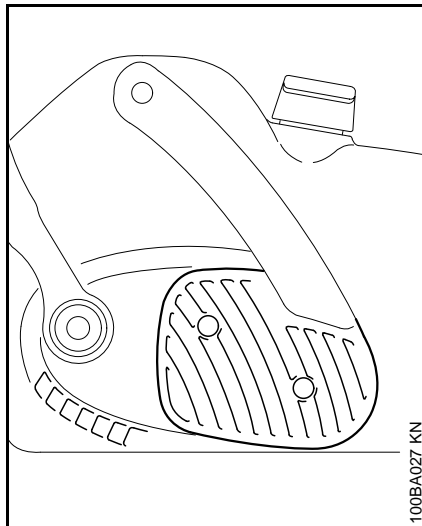
Rapid	0.404"	7.0 mm
-------	--------	--------

If the groove is not at least this deep:

- Replace guide bar

Otherwise the drive links will grind against the base of the groove – the bottoms of the cutters and the tie straps will not lie against the bar.

Motor Cooling



- Use a dry brush or similar tool to clean the cooling slots at regular intervals.

Storing the Machine

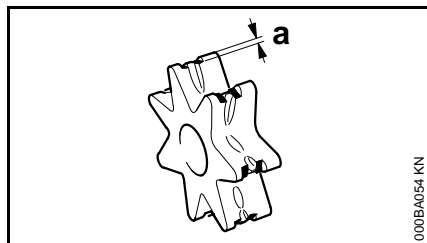
For periods of 3 months or longer

- Disconnect the plug from the wall outlet.
- Remove the saw chain and guide bar, clean them and spray with corrosion inhibiting oil.
- Thoroughly clean the machine, especially the cooling air inlets.
- If you use a biological chain and bar lubricant, e.g. STIHL BioPlus, completely fill the chain oil tank.
- Store the machine in a dry and secure location – out of the reach of children and other unauthorized persons.

Checking and Replacing the Chain Sprocket

- Disconnect the plug from the wall outlet.
- Remove the chain sprocket cover, chain and guide bar.

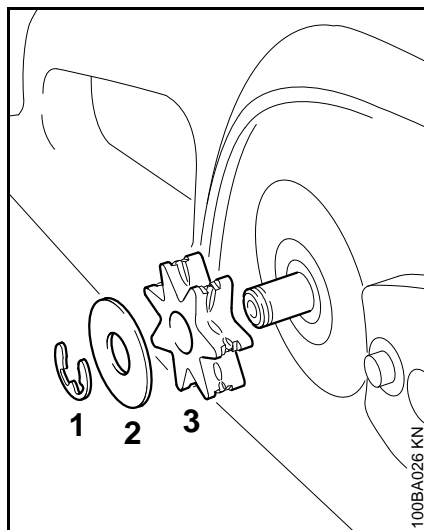
Replace the chain sprocket



- after using two saw chains or sooner
- if the wear marks (a) on the sprocket are deeper than approx. 0.5 mm since this would reduce the life of the chain. You can use a gauge (special accessory) to check the depth of the wear marks.

It is best to use two saw chains in rotation with one sprocket.

STIHL recommends the use of original STIHL sprockets to ensure correct operation of the chain brake.



- Ease the E-clip (1) off the shaft.
- Remove and inspect the washer (2) – replace it if it shows signs of wear.
- Remove the chain sprocket (3).
- Install the new chain sprocket in the reverse sequence.

Maintaining and Sharpening the Saw Chain

Cutting effortlessly with a correctly sharpened chain

A properly sharpened chain slices through wood effortlessly and requires very little feed pressure.

Do not work with a dull or damaged chain as it will increase the physical effort required, produce unsatisfactory results and a higher rate of wear.

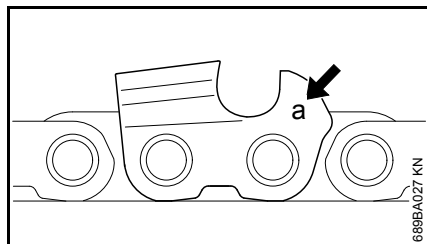
- Clean the chain.
- Check the chain for cracks in the links and damaged rivets.
- Replace any damaged or worn parts of the chain and match the new parts to the shape and size of the original parts.

Carbide-tipped saw chains (Duro) are particularly wear resistant. STIHL recommends you have your chain resharpened by a STIHL servicing dealer.

WARNING

It is absolutely essential to comply with the angles and dimensions specified below. If the saw chain is incorrectly sharpened – and in particular if the depth gauge is set too low – there is a risk of increased kickback of the saw, with resulting **risk of injury**.

Chain pitch



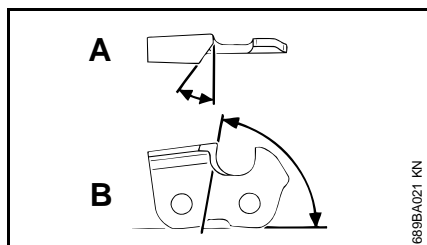
The chain pitch (a) is marked on the depth gauge end of each cutter.

Mark (a)	Chain pitch	
	inch	mm
7	1/4 P	6,35
1 or 1/4	1/4	6,35
6, P or PM	3/8 P	9,32
2 or 325	0.325	8,25
3 or 3/8	3/8	9,32
4 or 404	0.404	10,26

Select file diameter according to chain pitch – see table "Sharpening Tools".

You must observe certain angles when reshaping the chain cutter.

Filing and side plate angles



A Filing angle

STIHL saw chains are sharpened to a filing angle of 30°. Exceptions are ripping chains with a filing angle of 10°. Ripping chains have an X in their designations.

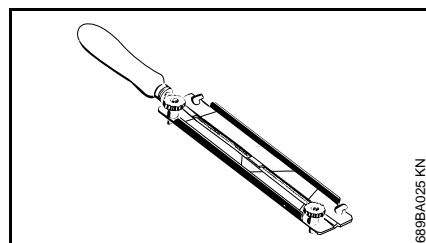
B Side plate angle

The correct side plate angle is obtained automatically if you use the prescribed file holder and file diameter.

Cutter shapes	Angle (°)	
	A	B
Micro = semi chisel cutter, e.g. 63 PM3, 26 RM3, 36 RM	30	75
Super = chisel cutter, e.g. 63 PS3, 26 RS, 36 RS3	30	60
Ripping chain, e.g. 63 PMX, 36 RMX	10	75

The angles must be the same on all cutters. If the angles are uneven: Chain will run roughly, not in a straight line, wear quickly and finally break.

File holder

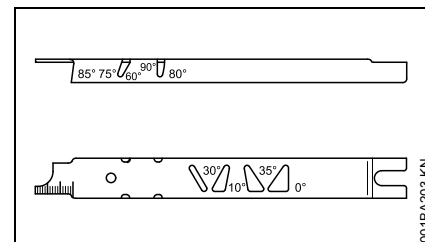


Use a file holder

A file holder must be used for manual reshaping (see table "Sharpening Tools"). The correct filing angles are marked on the file holder.

Use only special saw chain sharpening files. Other files have the wrong shape and cut.

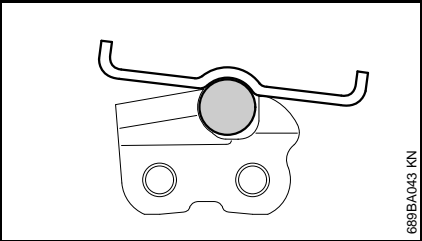
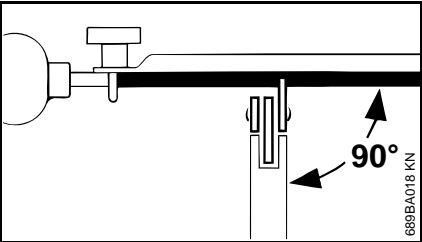
For checking angles



Use a STIHL filing gauge (special accessory, see table "Sharpening Tools"). This is a universal tool for checking the filing and side plate angles, depth gauge setting, cutter length and groove depth. It also cleans the guide bar groove and oil inlet holes.

File correctly

- Disconnect the plug from the wall outlet.
- Select sharpening tools according to chain pitch.
- Clamp the bar in a vise if necessary.
- To rotate the chain – pull hand guard against handle to disengage the chain brake. Hold the hand guard in this position – the coasting brake is disengaged.
- Sharpen the chain frequently, take away as little metal as possible – two or three strokes of the file are usually enough.

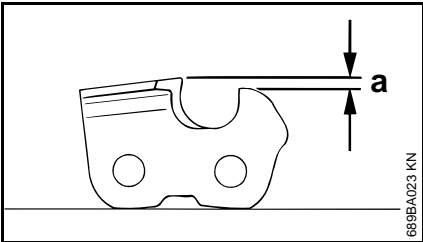


- Hold the file **horizontally** (at a right angle to the side of the guide bar) and file according to the angles marked on the file holder. Rest the file holder on the top plate and depth gauge.
 - Always file from the inside to the outside of the cutter.
 - The file only sharpens on the forward stroke – lift the file off the cutter on the backstroke.
 - Avoid touching the tie straps and drive links with the file.
 - Rotate the file at regular intervals while filing to avoid one-sided wear.
 - Use a piece of hardwood to remove burrs from the cutting edge.
 - Check angles with the filing gauge.
- All cutters must be the same length.

If the cutters are not the same length, they will have different heights. This makes the chain run roughly and can cause it to break.

- Find the shortest cutter and then file all other cutters back to the same length. It is best to have this work done by a servicing dealer on an electric grinder.

Depth gauge setting



The depth gauge determines the height at which the cutter enters the wood and thus the thickness of the chip removed.

- a** Specified distance or setting between depth gauge and cutting edge.

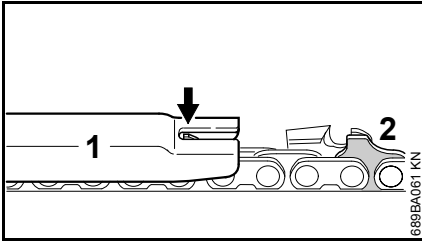
This setting may be increased by 0.2 mm (0.008") for cutting softwood in the mild weather season – no frost.

Chain pitch		Depth gauge Setting (a)	
inch	(mm)	mm	(inch)
1/4 P	(6,35)	0,45	(0.018)
1/4	(6,35)	0,65	(0.026)
3/8 P	(9,32)	0,65	(0.026)
0.325	(8,25)	0,65	(0.026)
3/8	(9,32)	0,65	(0.026)
0.404	(10,26)	0,80	(0.031)

Lowering depth gauges

The depth gauge setting is reduced when the chain is sharpened.

- Use a filing gauge to check the setting every time you sharpen the chain.

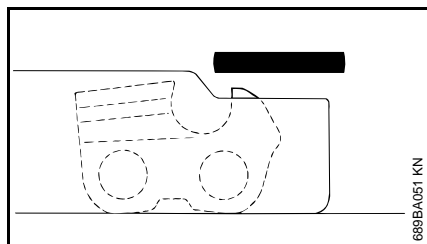


- Place a filing gauge (1) that matches the chain pitch on the chain and press it against the cutter – if the depth gauge projects from the filing gauge, the depth gauge has to be lowered.

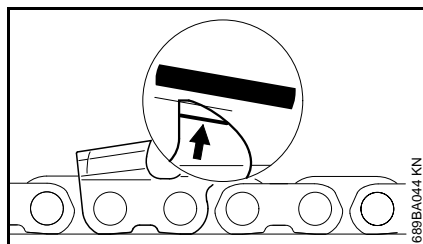
Saw chains with humped drive link (2) – upper part of humped drive link (2) (with service mark) is lowered along with the depth gauge.

WARNING

The other parts of the humped drive link must not be filed since this may increase the kickback tendency of the saw.



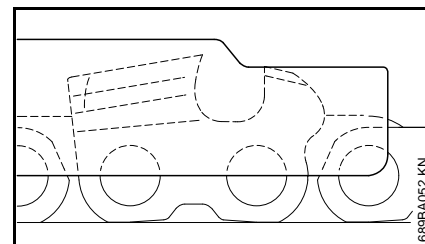
- File down the depth gauge until it is level with the filing gauge.



- File the top of the depth gauge parallel to the stamped service marking (see arrow) – but do not lower the highest point of the depth gauge in this process.

**WARNING**

The kickback tendency of the saw is increased if the depth gauges are too low.



- Place the filing gauge on the chain – the highest point of the depth gauge must be level with the filing gauge.
- After sharpening, clean the chain thoroughly, remove filings or grinding dust – lubricate the chain thoroughly.
- Before a long out-of-service period, clean the chain and store it in a well-oiled condition.

Sharpening Tools (special accessories)

Chain pitch		Round file Ø		Round file	File holder	Filing gauge	Flat file	Sharpening kit ¹⁾
inch	(mm)	mm	(inch)	Part No.	Part No.	Part No.	Part No.	Part No.
1/4 P	(6,35)	3,2	(1/8)	5605 771 3206	5605 750 4300	0000 893 4005	0814 252 3356	5605 007 1000
1/4	(6,35)	4,0	(5/32)	5605 772 4006	5605 750 4327	1110 893 4000	0814 252 3356	5605 007 1027
3/8 P	(9,32)	4,0	(5/32)	5605 772 4006	5605 750 4327	1110 893 4000	0814 252 3356	5605 007 1027
0.325	(8,25)	4,8	(3/16)	5605 772 4806	5605 750 4328	1110 893 4000	0814 252 3356	5605 007 1028
3/8	(9,32)	5,2	(13/64)	5605 772 5206	5605 750 4329	1110 893 4000	0814 252 3356	5605 007 1029
0.404	(10,26)	5,5	(7/32)	5605 772 5506	5605 750 4330	1106 893 4000	0814 252 3356	5605 007 1030

¹⁾ consisting of file holder with round file, flat file and filing gauge

Maintenance and Care

The following maintenance intervals apply for normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, resin-rich wood, tropical wood, etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	weekly	monthly	if problem	if damaged	if required
Complete machine	Visual inspection (condition, leaks)	X						
	Clean		X					
Trigger switch	Check operation	X						
Chain brake, coasting brake	Check operation	X						
	Check ^{1) 2)}							X
Chain oil tank	Clean				X			
Chain Lubrication	Check	X						
Saw chain	Inspect, also check sharpness	X						
	Check chain tension	X						
	Sharpen							X
Guide bar	Check (wear, damage)	X						
	Clean and turn over			X		X		
	Deburr			X				
	Replace						X	X
Chain sprocket	Check			X				
Cooling inlets	Clean		X					
All accessible screws and nuts	Retighten							X
Chain catcher on sprocket cover	Check			X				
	Replace sprocket cover						X	
Power cord	Check	X						
	Replace ¹⁾						X	
Safety labels	Replace						X	

¹⁾STIHL recommends a STIHL servicing dealer.

²⁾ see chapter on "Chain Brake"

Minimize Wear and Avoid Damage

Observing the instructions in this manual helps reduce the risk of unnecessary wear and damage to the power tool.

The power tool must be operated, maintained and stored with the due care and attention described in this instruction manual.

The user is responsible for all damage caused by non-observance of the safety precautions, operating and maintenance instructions in this manual. This includes in particular:

- Alterations or modifications to the product not approved by STIHL.
- Using tools or accessories which are neither approved or suitable for the product or are of a poor quality.
- Using the product for purposes for which it was not designed.
- Using the product for sports or competitive events.
- Consequential damage caused by continuing to use the product with defective components.

Maintenance Work

All the operations described in the "Maintenance Chart" must be performed on a regular basis. If these maintenance operations cannot be performed by the owner, they should be performed by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL

servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

If these maintenance operations are not carried out as specified, the user assumes responsibility for any damage that may occur. Among other things, this includes:

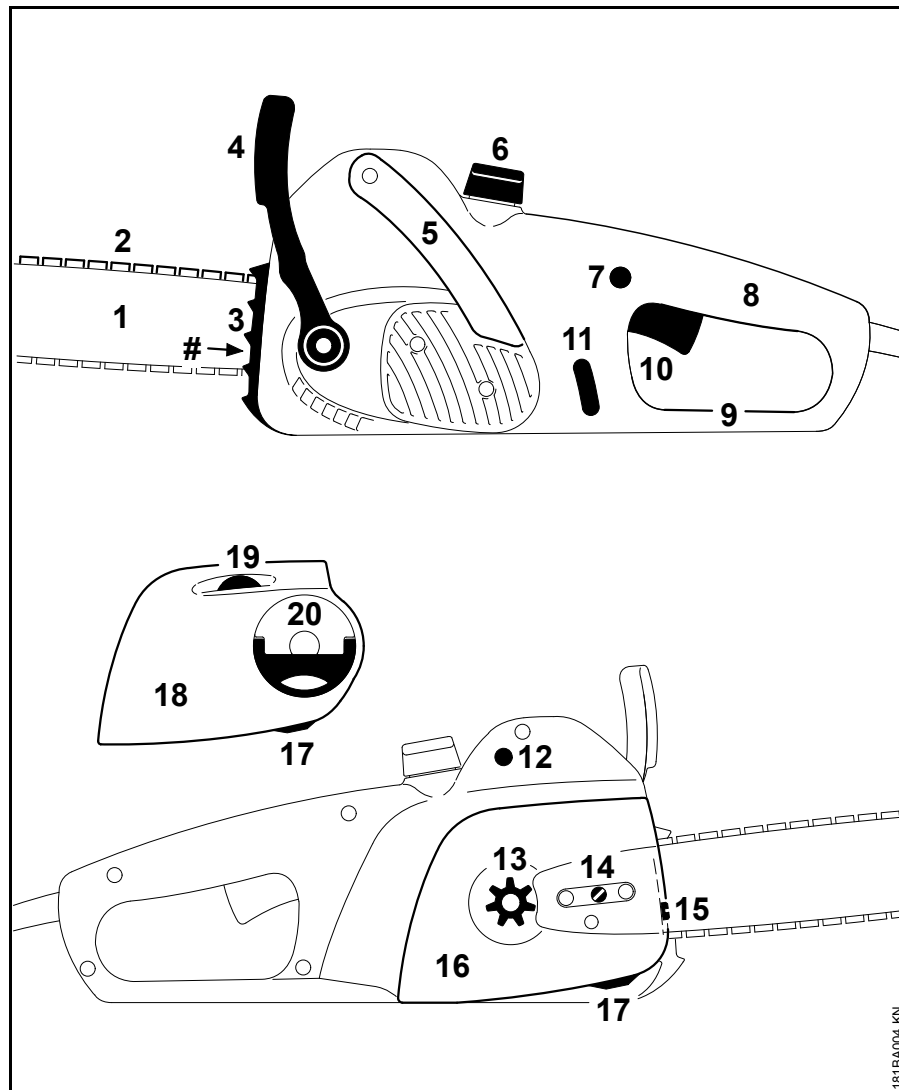
- Damage to the motor due to neglect or deficient maintenance (e.g. not cleaning cooling air inlets).
- Damage due to incorrect electrical connection (voltage, inadequately rated connecting cords).
- Corrosion and other consequential damage resulting from improper storage.
- Damage to the product resulting from the use of poor quality replacement parts.

Parts Subject to Wear and Tear

Some parts of the power tool are subject to normal wear and tear even during regular operation in accordance with instructions and, depending on the type and duration of use, have to be replaced in good time. Among other parts, this includes:

- Saw chain, guide bar, chain sprocket.
- Carbon brushes.

Main Parts



- 1 Guide bar
- 2 Oilmatic saw chain
- 3 Bumper spike
- 4 Front hand guard
- 5 Front handle
- 6 Oil filler cap
- 7 Lockout button
- 8 Rear handle
- 9 Rear hand guard
- 10 Trigger switch
- 11 Oil inspection window
- 12 Overload circuit breaker
(MSE 140 C, 160 C, 180 C)
Indicator lamp (MSE 200 C)
- 13 Chain sprocket
- 14 Side chain tensioner
- 15 Front chain tensioner
- 16 Chain sprocket cover
- 17 Chain catcher
- 18 Chain sprocket cover with quick
chain tensioner
- 19 Adjusting wheel
- 20 Handle for wingnut
- # Serial number

181BA004 KN

Specifications

Motor

MSE 140 C

Voltage:	230 V
Frequency:	50 Hz
Power consumption:	1.4 kW
Fuse:	16 A
Type of enclosure:	IP 20
Insulation:	II

MSE 160 C

Voltage:	230 V
Frequency:	50 Hz
Power consumption:	1.6 kW
Fuse:	16 A
Type of enclosure:	IP 20
Insulation:	II

MSE 180 C

Voltage:	230 V
Frequency:	50 Hz
Power consumption:	1.8 kW
Fuse:	16 A
Type of enclosure:	IP 20
Insulation:	II

MSE 200 C

Voltage:	230 V
Frequency:	50 Hz
Power consumption:	2.0 kW
Fuse:	16 A
Type of enclosure:	IP 20
Insulation:	II

Chain lubrication

Fully automatic, speed-controlled oil pump with reciprocating piston

Oil tank capacity: 0.20 l

Weight

with bar and chain, without cord

MSE 140 C:	3.6 kg
MSE 160 C:	4.0 kg
MSE 180 C:	4.2 kg
MSE 200 C:	4.4 kg

Cutting attachment (MSE 140 C)

Rollomatic E Mini guide bars

Cutting lengths:	30, 35, 40 cm
Pitch:	3/8" P (9.32 mm)
Groove width:	1.1 mm
Nose sprocket:	7-tooth

3/8" Picco chains

Picco Micro Mini 3 (61 PMM3) Type 3610	
Pitch:	3/8" P (9.32 mm)
Drive link gauge:	1.1 mm

Chain sprocket

7-tooth for 3/8" P

Cutting attachment (MSE 160 C, MSE 180 C, MSE 200 C)

Rollomatic E und Rollomatic E Light guide bars

Cutting lengths:	30, 35, 40 cm
Pitch:	3/8" P (9.32 mm)
Groove width:	1.3 mm
Nose sprocket:	9-tooth

3/8" Picco chains

Picco Micro 3 (63 PM3) Type 3636	
Picco Duro (63 PD3) Type 3612	
Pitch:	3/8" P (9.32 mm)
Drive link gauge:	1.3 mm

Chain sprocket

7-tooth for 3/8" P

Noise and Vibration Data

Noise data is determined on the basis of the rated maximum speed.

Vibration data is determined on the basis of the full load operating mode.

For further details on compliance with Vibration Directive 2002/44/EC see www.stihl.com/vib/

Sound pressure level L_p to ISO 3744

MSE 140 C:	91 dB(A)
MSE 160 C:	93 dB(A)
MSE 180 C:	92 dB(A)
MSE 200 C:	92 dB(A)

Sound power level L_w to ISO 3744

MSE 140 C:	104 dB(A)
MSE 160 C:	106 dB(A)
MSE 180 C:	105 dB(A)
MSE 200 C:	105 dB(A)

Vibration measurement a_{hv} to EN 60745-2-13

	Handle, left	Handle, right
MSE 140 C:	1.8 m/s ²	2.3 m/s ²
MSE 160 C:	2.2 m/s ²	3.0 m/s ²
MSE 180 C:	2.2 m/s ²	2.7 m/s ²
MSE 200 C:	2.9 m/s ²	3.5 m/s ²

The K-factor in accordance with Directive 2006/42/EC is 2.5 dB(A) for the sound pressure level and sound power level; the K-factor in accordance with Directive 2006/42/EC is 2.0 m/s² for the vibration measurement.

The vibration values quoted above have been measured according to a standardized test procedure and may be used to compare electric power tools.

Depending on the type of usage, the vibrations that actually occur may differ from the values quoted.

The vibration values quoted may be used for an initial assessment of the user's exposure to vibrations.

The actual exposure to vibrations has to be evaluated. This process may also take into account times during which the electric power tool is switched off and times during which it is switched on but running without load.

Observe measures to reduce vibration exposure to protect the user – see section on "Vibrations" in chapter on "Safety Precautions and Working Techniques".

REACH

REACH is an EC regulation and stands for the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

For information on compliance with the REACH regulation (EC) No. 1907/2006 see www.stihl.com/reach.

Special Accessories

- File holder with round file
- Filing gauge
- Reference gauges

Contact your STIHL dealer for more information on these and other special accessories.

EC Declaration of Conformity

ANDREAS STIHL AG & Co. KG
Badstr. 115
D-71336 Waiblingen

confirms that the product described
below

Category:	Electric chainsaw
Make:	STIHL
Model:	MSE 140 C MSE 140 C-Q MSE 140 C-BQ MSE 160 C MSE 160 C-Q MSE 160 C-BQ MSE 180 C MSE 180 C-BQ MSE 200 C MSE 200 C-BQ

Serial identification: 1208

conforms to the specifications of
Directives 2011/65/EC, 2006/42/EC,
2004/108/EC and 2000/14/EC and has
been developed and manufactured in
compliance with the following
standards:

EN 60745-1, EN 60745-2-13,
EN 55014-1, EN 55014-2,
EN 61000-3-2, EN 61000-3-3

The measured and guaranteed sound
power levels were determined according
to Directive 2000/14/EC, Annex V, using
the ISO 9207 standard.

Measured sound power level

All MSE 140 C:	103 dB(A)
All MSE 160 C:	102 dB(A)
All MSE 180 C:	103 dB(A)
All MSE 200 C:	105 dB(A)

Guaranteed sound power level

All MSE 140 C:	104 dB(A)
All MSE 160 C:	103 dB(A)
All MSE 180 C:	104 dB(A)
All MSE 200 C:	106 dB(A)

The EC type examination was carried
out by

KEMA Quality GmbH (NB 2140)
Enderstraße 92b
D-01277 Dresden

Certification No.

All MSE 140 C	3400494.01 CE
All MSE 160 C	3400494.01 CE
All MSE 180 C	3400494.01 CE
All MSE 200 C	3400494.01 CE

Technical documents deposited at:

ANDREAS STIHL AG & Co. KG
Produktzulassung (Product Licensing)

The year of manufacture and serial
number are applied to the product.

Done at Waiblingen, 01.08.2012

ANDREAS STIHL AG & Co. KG



Thomas Elsner

Director Group Product Management



Quality Certification



All STIHL products comply with the highest quality standards.

An independent organization has certified that all products manufactured by STIHL meet the strict requirements of the ISO 9001 standard for quality management systems in terms of product development, materials purchasing, production, assembly, documentation and customer service.

General Power Tool Safety Warnings

This chapter reproduces the pre-formulated, general safety precautions specified in the EN 60745 European standard for hand-held motor-operated electric tools. STIHL is required by law to print these standardized texts verbatim.



WARNING

Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord extension suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the power tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for connection of dust extraction and -collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting attachments sharp and clean.** Properly maintained cutting attachments with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories, tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Service

- a) **Have your electric power tool serviced by a qualified repair person using only original replacement parts.** This will ensure that the safety of the power tool is maintained.

Chain saw safety warnings

- **Keep all parts of the body away from the saw chain when the chain saw is operating, make sure the saw chain is not contacting anything.** A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the chain saw.
- **Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle.** Holding the chain saw the other way round increases the risk of injury and may not be used.
- **Always hold your electric power tool by the insulated handles because the saw chain may contact hidden electrical wires or your own power cord.** Any saw chain contact with a live wire may energize metallic parts of the power tool and result in an electric shock.
- **Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended.** Suitable protective clothing helps reduce the risk of injury from thrown wood chips and accidental contact with the saw chain.
- **Do not operate a chain saw in a tree.** There is an increased risk of injury when working in a tree.

- **Always keep proper footing and operate the chain saw only when standing on a fixed, secure and level surface.** A slippery surface or instable support such as a ladder could cause the operator to lose control of the chain saw.
- **When cutting a limb that is under tension be alert for spring back.** When the tension in the wood fibres is released the spring loaded limb may strike the operator and/or throw the chain saw out of control.
- **Use extreme caution when cutting brush and saplings.** The slender material may catch the saw chain and be whipped toward you or pull you off balance.
- **Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw always fit the guide bar scabbard.** Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.
- **Follow instructions for lubricating, chain tensioning and changing accessories.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.

- **Keep handles dry, clean and free from oil and grease.** Greasy, oily handles are slippery causing loss of control.
- **Cut wood only. Do not use chain saw for purposes not intended.** **Example: do not use chain saw for cutting plastic, masonry or non-wood building materials.** Use of the chain saw for operations different than intended could result in a hazardous situation.

Causes and operator prevention of kickback:

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut.

Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.

Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator.

Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.

Kickback is the result of tool misuse and/or incorrect operating procedures and can be avoided by taking proper precautions as given below:

- **Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces.** Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw.
- **Do not overreach and do not cut above shoulder height.** This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.
- **Only use replacement bars and chains specified by the manufacturer.** Incorrect replacement bars and chains may cause chain breakage and/or kickback.
- **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.

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